

CLAIMS:

1. A method for assembling and depositing a reinforcement mesh on a prepared surface comprising the steps of:

5 providing a mobile workstation which includes an elevated support arrangement, the workstation being moveable in a first direction;

positioning a series of longitudinal reinforcement rods on or above said support arrangement, said longitudinal reinforcement bars being spaced apart and aligned generally parallel to said first direction;

10 providing a roll of transverse reinforcing rods supported on said workstation and adapted to be unrolled to form a series of spaced apart reinforcement rods aligned generally transverse to said first direction;

connecting said transverse rods to at least one of said longitudinal rods to form an orthogonal reinforcement mesh on said mobile workstation; and

15 moving the workstation in said first direction to deposit said mesh on said prepared surface.

2. A method according to claim 1, wherein the longitudinal reinforcing rods are provided in the form of a roll of rods connected together by flexible connecting elements, and the longitudinal reinforcing rods being arranged in spaced apart relationship by unrolling the roll.

20 3. A method according to claim 1, wherein said longitudinal reinforcing rods are maintained in said spaced apart relationship by a plurality of rollers on said elevated support arrangement.

4. A method according to any one of the preceding claims, wherein the longitudinal reinforcing rods are supported on the support arrangement located to the fore
25 of the roll of transverse reinforcing rods.

5. A method according to any one of the preceding claims, wherein replacement longitudinal reinforcing rods are joined to the longitudinal rods which

comprise the orthogonal mesh to thereby form a continuous orthogonal mesh on said prepared surface.

6. A method according to claim 5, further comprising the step of:

5 moving the workstation in said first direction a distance sufficient to draw at least a part of said mesh off said support arrangement to thereby create space on said support arrangement for said replacement longitudinal reinforcing rods.

positioning at least a second series of longitudinal reinforcing rods as the first series of longitudinal reinforcing rods moves in the second direction and; and

7. A method according to claim 5 or claim 6, further comprising the steps of:

10 providing a second roll of transverse reinforcing rods on the mobile workstation; and

progressively joining the reinforcing rods of the second roll of transverse reinforcing rods to one or more of the longitudinal reinforcing rods as the longitudinal reinforcing rods travel over said support arrangement to thereby form a continuous reinforcement mesh.

8. A method according to any one of the preceding claims, wherein the transverse reinforcing rods are joined to the longitudinal reinforcing rods by a welding process.

20 9. A method according to claim 8, wherein the welding process is effected manually.

10. A method according to claim 8, wherein the welding process is effected by an automated welding apparatus.

25 11. A method according to any one of claims 1 to 7, wherein the transverse reinforcing rods are joined to the longitudinal reinforcing rods by a tying process using a wire, clamp or clip means.

12. A method according to any one of the preceding claims, wherein the longitudinal and transverse reinforcing rods are sized such that the reinforcement mesh is suitable for reinforcing a concrete roadway.

13. A method according to any one of the preceding claims, wherein the reinforcement mesh is deposited onto spacer members positioned on said prepared surface so as to maintain the reinforcement mesh spaced from the prepared surface at a suitable distance so as to allow the reinforcement mesh to be encased within a slab of concrete.

14. A mobile workstation for assembling and depositing a reinforcement mesh on a prepared surface, the workstation comprising:

an elevated support arrangement moveable along the prepared surface in a first direction;

at least one roll holding means for supporting a roll of transverse reinforcing rods, said roll adapted to unroll to form a series of spaced apart reinforcement rods aligned generally transverse to said first direction;

longitudinal reinforcement rod support means for supporting a series of longitudinal reinforcing rods, said series of longitudinal reinforcing rods being in a spaced apart relationship and generally parallel to said first direction;

wherein in use, said transverse rods are connected to at least one of said longitudinal rods to form an orthogonal reinforcement mesh and said workstation moves in said first direction to deposit said mesh on said prepared surface

15. A mobile workstation according to claim 14, further comprising a chassis that is moveable along the prepared surface.

16. A mobile workstation according to claim 14 or claim 15, further comprising a plurality of wheels for allowing movement of the workstation along the prepared surface.

17. A mobile workstation according to claim 16, further comprising a set of caterpillar tracks for allowing movement of the workstation along the prepared surface.

18. A mobile workstation according to any one of claims 14 to 17, further comprising an apron means extending rearwardly of the roll holding means and sloping downwardly toward the prepared surface on which the reinforcement mesh is to be

deposited, so as to facilitate deployment of the reinforcement mesh to the prepared surface.

19. A mobile workstation according to any one of claims 14 to 18, wherein the longitudinal reinforcing rod support means comprises a tray, wherein the tray is a portion
5 of the mobile workstation.

20. A mobile workstation according to any one of claims 14 to 18, wherein the longitudinal reinforcing rod support means comprises a plurality of rollers.

21. A mobile workstation according to claim 20, wherein the rollers include a circumferential recess, the recess being sized so as to locate the longitudinal reinforcing
10 rods so as to maintain the longitudinal reinforcing rods in said spaced apart relationship.

22. A mobile workstation according to any one of claims 14 to 21, wherein the workstation includes a drive means to motivate the workstation along the prepared surface.

23. A mobile workstation according to any one of claims 14 to 21, wherein the
15 workstation is motivated by an independent drive means, and the longitudinal rod support means comprises a tray which is integral with the independent drive means.

24. A mobile workstation according to any one of claims 14 to 23, wherein the at least one roll holding means is positioned below a path of travel of the longitudinal reinforcing rods.

20 25. A mobile workstation according to any one of claims 14 to 23, wherein the at least one roll holding means is positioned above a path of travel of the longitudinal reinforcing rods.

26. A mobile workstation according to any one of claims 14 to 25, wherein the at least one roll holding means includes one or more rotatable elements on which the at
25 least one roll is supported, the one or more rotatable elements facilitating unrolling of the rolls.

27. A mobile workstation according to claim 26, wherein the one or more rotatable elements comprises one or more wheel or roller members.

28. A mobile workstation according to any one of claims 14 to 27, wherein the roll holding means comprises one or more cradles.

29. A mobile workstation according to claim 28, wherein the one or more cradles is semi-circular in section.

5 30. A mobile workstation according to claim 28 or claim 29, wherein the one or cradles extend across the mobile workstation.

31. A mobile workstation according to claim 28 or claim 29, wherein the one or more cradles is a plurality of narrow cradles positioned transverse relative to each other in a manner so as to support each roll.

10 32. A method for assembling and laying a reinforcement mesh, substantially as herein described with reference to the accompanying drawings.

33. A mobile workstation for assembling and laying a reinforcement mesh, substantially as herein described with reference to the accompanying drawings.